



Shortchanged in Retirement: Continuing Challenges to Women's Financial Future

Jennifer Erin Brown ^{a,*}, Nari Rhee ^b, Joelle Saad-Lessler ^c, Diane Oakley ^d

^{a,d} National Institute on Retirement Security

^b Institute for Research on Labor and Employment/Center for Labor Research and Education at the University of California at Berkeley

^c Schwartz Center for Economic Policy Analysis at the New School for Social Research

ARTICLE INFO

JEL Classification:

J26

J16

J14

H55

J12

Keywords:

Women

Retirement

Retirement Security

DB Plans

Pensions

DC Plans

Social Security

Pay Gap

teachers

SIPP

ABSTRACT

This report, which is based on the authors' analysis of the 2012 Survey of Income and Program Participation (SIPP) data, examines the distinct challenges posed by the current retirement system of Social Security, pensions, and savings for working-age, retirement-aged, and retired women. This report finds that women are 80 percent more likely than men to be impoverished at age 65 and older as they end up having less retirement wealth, live longer, and have overall higher medical expenses. Building retirement savings remains difficult as women's higher rates of part-time employment and shorter job tenure make it more difficult to meet eligibility requirements for participation in retirement plans, and the gender pay gap lowers women's lifetime earnings. Security they may have had from Social Security or direct benefit (DB) plan benefits are also reduced as direct contribution (DC) plans have become dominant. Yet, the report also finds women in the health care, education, and public administration fields, where DB pension plans are more prevalent, have higher incomes in retirement and lower rates of poverty than in other industries, due to their increased participation in DB pension plans. In consideration of these findings, we propose further policy solutions that will reduce women's retirement insecurity.

Journal of Insurance and Financial Management

*Corresponding Author:

jbrown@nirsonline.org

Acknowledgements:

We are grateful for the comments, advice, and assistance provided by our advisory committee, including Karen Friedman, Jeffrey Hayes, Cindy Hounsell, Amy Matsui, Kim Mustin, and Alison Shelton. The authors greatly appreciate the financial grant in support of this research provided by BNY Mellon Investment Management, which in part helped make this report possible. Additionally, we would like to thank Joseph Arena, Katherine Gallagher Robbins, David Johns, Ida Rademacher, Kathy Langford, Kelly Kenneally, and Rachel Fauber for their assistance with this report. The views in this report and any errors and omissions are those of the authors alone.

Journal of Insurance and Financial Management (ISSN-Canada: 2371-2112)

1. Introduction

The foundations of middle class retirement security in the U.S. rest on a “three-legged stool” composed of Social Security, a pension, and personal savings for their retirement. After decades of restructuring in retirement benefits and stagnant household incomes, this three-legged stool is broken, especially for women. They cannot make ends meet on Social Security alone, yet lack sufficient personal savings to get by, and—for the majority who work in the private sector—are less likely to have an employer-sponsored defined benefit (DB) pension. Baby boomer women—the first generation to approach retirement age under these conditions—find themselves in the workforce well into retirement age and facing poverty rates close to 10 percent.¹

This report, which is primarily based on the authors’ analysis of the 2012 Survey of Income and Program Participation (SIPP) data from the United States Census Bureau, examines the distinct challenges posed by the current retirement system of Social Security, pensions, and savings for working-age women, retirement-aged women, and retired women. Specifically, this report examines the labor participation rates of women approaching retirement; women’s access, eligibility, and participation in employer-sponsored retirement plans; sources of income for women aged 65 and older; and poverty rates of women aged 65 and older. We also provide an overview of proposed policy solutions that reduces women’s vulnerability to financial hardship as they age.

Women’s lifetime earnings exert a large impact on their level of retirement security, as they determine Social Security benefits, DB pension income, and savings in DC retirement plans (Hartmann & English, 2009). Although the Equal Pay Act and the women’s movement have focused on narrowing the pay gap, in 2014 women earned only \$0.79 for every dollar earned by a man (Hill, 2015). The gender wage gap is dramatically higher for African American women and Latinas, who earn \$0.60 and \$0.55, respectively, for every dollar earned by men (National Women’s Law Center, 2015). The gap starts early, even for well educated workers, as the American Association of University Women found that women college graduates as early as one year after graduating from college earned 82 percent of what male graduates earned. In fact, the disparity between the earnings of all women and men grows over time—a ten percent gap in median weekly wages between women and men age 20 to 24 grows to a 23 percent gap by the age of 55 to 64 for women and men (Hill, 2015).

¹ Authors’ calculations using the Current Population Survey for 2015.

Across all age groups, women have less retirement wealth than men. When it comes to DB pensions, in 2010 men received \$17,856 in median income from DB pensions, whereas women received \$12,000—which is 33 percent less (Porrell & Oakley, 2012). There is also a gender gap in DC retirement account assets. In 2014, among money-manager Vanguard's three million participants, the median amount accumulated in DC retirement accounts was \$36,875 for men and \$24,446 for women—which is 34 percent less (The Vanguard Group, 2014). This is troubling because women need more retirement assets because they will likely live longer than to men (Chang, 2010).

As noted in Jacob Hacker's "The Great Risk Shift" (2006), individuals now have less retirement security through Social Security and benefits provided in DB pensions. As many private sector employers have replaced traditional DB pensions with DC plans, men and women must now become financial experts and are tasked with managing their investments to accumulate the amount of wealth they will need at retirement.

Even though women have positive views regarding saving, their lower incomes make them more apprehensive when it comes to investing, as the risk of loss is harder to tolerate. Women's reservations about risk-taking are consistent with Fidelity Investments finding that women hold more balanced portfolios than men, have higher asset allocations in blended assets, are invested more age appropriately than men, and are more likely to save (Fidelity Viewpoints, 2015). These factors may allow women to achieve the same or better rates of return than men. In fact, finance professors Brad Barber and Terrance Odean (2001) found that female investors had better rates of return than male investors. Furthermore, researchers speculate that women who do invest are more likely to perform thorough research on their investments, be value investors, and seek professional advice about their investments (Chang, 2010).

Even if a woman has saved adequately for retirement, she will face a number of obstacles. First, she has to make her income last longer in retirement. Second, not all men and women begin their retirement on even footing, as some women leave the workforce early to become caregivers, forgoing additional wages, and Social Security benefits. Third, when it comes to expenses, women face overall higher medical expenses than men in retirement, especially when it comes to long term care.

To make matters worse, women who typically start Social Security income at age 62 will face lower income replacement rates when the Social Security retirement age is increased to 67 (Board of Trustees, 2015). Another issue for women is the spousal benefits provided by Social

Security were designed for marriage patterns of earlier generations. As a result, more women may not have access to Social Security spousal benefits that accurately reflect their economic contributions to their family (Entmacher & Matsui, 2013).

I. Women are working longer today than they ever have before

Women have always worked. Historically, women with less than a college degree, immigrant women, and women of color were more likely to work. After 1945, college-educated women were more likely to work—especially if they were not married (Boushey, 2014). Much of the change in the participation rate of women in the workforce began as female baby boomers came into the workforce during the 1970's. By 1994, women had increased their share of the workforce to 46 percent, and in the years since, women's workforce participation rose gradually, increasing to 46.8 percent in 2014 (Bureau of Labor Statistics, 2015).

During their prime work years—ages 25 to 54—women in this generation worked in greater numbers than earlier generations. Unlike their mothers and grandmothers, women now work well into their retirement years and some may not retire at all. In a national survey by the National Institute on Retirement Security in 2015, women responded that they will need to delay retirement at a rate one-third higher than that of male respondents.² Reasons for this delay include making up for reduced work hours or earnings earlier in their career; time out of the workforce to care for children, a spouse, or parents; offsetting retirement losses from the Great Recession; or attempting to accumulate additional retirement savings (Hartmann & English, 2009).

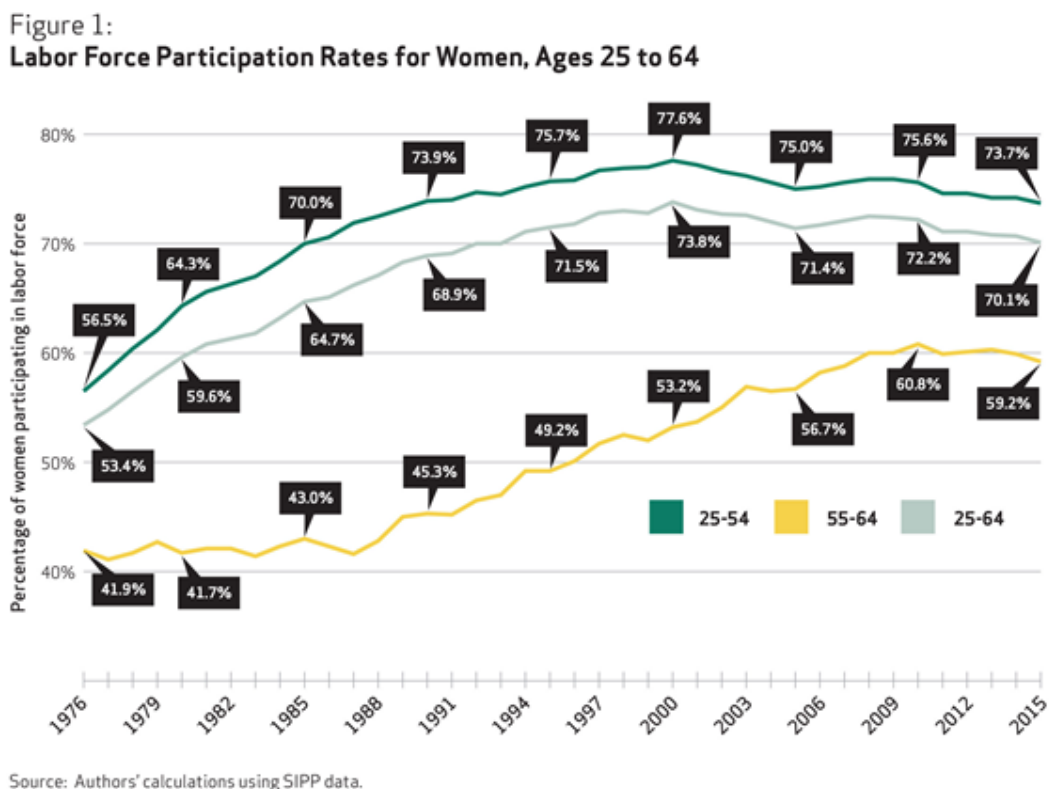
Specifically, Figure 1 illustrates our analysis of women's increasing participation in the workforce since 1975 using the U.S. Census Bureau's Survey of Income and Program Participation (SIPP) data. Breaking down the workforce participation into prime work years—ages 25 to 54—and those approaching retirement—ages 55 to 64—we find that the baby boomer population has increased workforce participation of women aged 55 to 64. Specifically, since 2000 when the first boomers approached age 55, the workforce participation of women age 55 to 64 has climbed from 53.2 percent in 2000 to 59.2 percent in 2015, with a peak of 60.8 percent in 2010. During the depths of the Great Recession in 2008 to 2010—76 percent of women age of 25 to 54 participated in the workforce compared to 61 percent of women age 55 to 64. However, women between ages 25 and 54 experienced a four percentage point

² See question D5 “[Do you plan to work in retirement or delay retirement/Did you work in retirement] because you [need/needed] to?” response on page 15; 31 percent of males said they needed to work while 41 percent of females indicated that they needed to work.

reduction in their participation in the workforce, which fell from a peak in 2000 of 77.6 percent to 73.7 percent in 2015.

This trend of more women of working up to retirement age does not end at age 64. In fact, according to economist James Poterba (2014), the labor force participation rate for women age 65 to 69 increased from 17 percent in 1990 to 27 percent in 2010—a 59 percent increase. The Bureau of Labor Statistics (2015) believes this trend will continue through 2024.

Women approaching retirement age may extend their careers in order to accumulate additional savings, or to earn more pension credits for retirement, as a way to make up for lower household earnings from reduced work hours, or for time out of the workforce (Hartmann & English, 2009). Older women may also be responding to their investment losses surrounding the Great Recession, when stock values fell dramatically. Overall, their increased labor force participation may indicate a new labor market pattern, as an increasing share of older Americans stay in their jobs for as long as possible to make up for shortfalls in accumulated retirement savings (Oakley & Kenneally, 2015).³



³ 72 percent of Americans surveyed indicated that they would continue to work at their current job as long as possible and 56 percent said that they would seek full or part-time work in retirement to help ensure a financially secure retirement.

II. Women have greater access to retirement plans and finally reached participation levels equal to men

As discussed by sociologist Mariko Lin Chang (2010), employer-sponsored retirement plans puts wealth directly in women's hands through tax benefits, matching contributions from employers, and the power of compounding interest. Between 1998 and 2012, women were somewhat more likely than men to work for employers that offered any type of retirement plan. This reversed the previous historical trend of women trailing men in working for employers that offered retirement plans. Improved access to employer-sponsored plans has helped to narrow the gap between men and women's eligibility for retirement plans. Yet, no matter the type of retirement plan or women's participation rates—which have equaled that of men since 2006—the wage gap between men and women results in women accumulating less retirement wealth than men (Chang, 2010). In traditional pension plans, such as DB plans, employers use formulas that multiply length of employment with earnings to determine the pension's value. While DB plans offer greater wealth to participants over their lifetimes, women often see reduced benefits from these plans due to their lower earnings and shorter lengths of employment (Chang, 2010). In a DC plan, such as a 401(k) plan, women are often at a double disadvantage to men, as their lower earnings and shorter lengths of employment determine their decisions both to participate and how much money they are able to contribute to a plan (Chang, 2010).

Retirement Plans

Retirement Plans are deferred compensation arrangements related to an employee's work for an employer.

Defined Benefit (DB) pension plans maintained by employers use a predetermined formula to calculate retirement benefits. A fixed percentage of an employee's compensation, referred to as the benefit multiplier, is used in a formula that takes into consideration an employee's years of service. Compensation is generally averaged over a period of years and this design feature makes the plan attractive to employees who know that they will have a steady, predictable income that will enable them to maintain a stable portion of their pre-retirement income. DB pensions are prefunded with contributions determined actuarially and subject to the limits in the tax code. Employers—and in most public DB pensions—employees, make contributions to a trust fund over the employee's career. Plan funds are invested by professional asset managers and the earnings help lower the out-of-pocket cost.

Defined contribution (DC) plans, such as 401(k) plans, function very differently than DB plans. First, there is no guaranteed of retirement income in a DC plan. Rather, employees (and usually employers) contribute to an individual account over the course of a worker's career. Employees choose the level of retirement savings that they can make and control the investment decisions and employers often make matching contributions based on the amount each employee saves. Benefits depends on the amount contributed, investment returns, years retirees live after they leave work. A key difference with DB plans is that the retiree must decide how to draw down savings and she can risk running out of money or choose too conservatively and experience a lower standard of living.

Table 1: **Percent of working men and women that participate in any employer-sponsored retirement plan, historically**

	Offered a Plan	Eligible for a Plan	Employee Take-Up Rate*	Participates in a Plan	Offered a Plan	Eligible for a Plan	Employee Take-Up Rate*	Participates in a Plan
Year	Men				Women			
1998	60%	85%	91%	46%	60%	78%	87%	41%
2003	61%	88%	90%	48%	64%	82%	88%	46%
2006	57%	86%	88%	43%	61%	83%	85%	43%
2009	58%	90%	87%	45%	61%	86%	86%	45%
2012	60%	89%	86%	46%	63%	85%	86%	46%

Source: Authors' calculations using SIPP data.

*Authors' calculation of participates in plan was calculated by multiplying the percentage of employees offered a plan, by the percentage eligible for a plan, by the employee take-up rate.

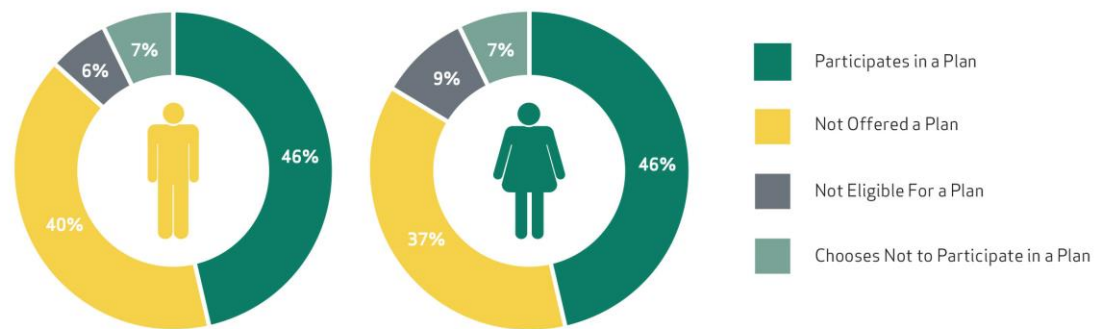
Utilizing data from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP), this section examines women's rates of access to, eligibility for, and participation in retirement plans. Retirement plans include employer-sponsored DB plans and DC plans—such as 401(k) plans, 403(b)s, 457(b)s, SEP IRAs, SIMPLE IRAs, and traditional IRA plans.

Table 1 shows that from 1998 to 2012 working women consistently surpassed men in the likelihood that their employers offered retirement plans to workers. The higher likelihood of working for an employer who offered a plan may reflect the sectors and industries where many women work. Specifically, women are more likely to be employed in the education and healthcare industries, in the public and non-profit sectors. These segments have higher proportions of workers with access to retirement plans. In contrast, men are more likely to be self-employed, making them much less likely to have a retirement plan (Jeszeck, 2012). This idea is further discussed in Section IV of this report.

A challenge for both sexes is the fact that 54 percent of men and women do not have coverage by any employer-sponsored retirement plan. And, even though women have exceeded men in the rates at which women are offered employer-sponsored retirement plans, men are eligible to participate in these plans at a greater rate than women. The eligibility rates for men and women found in Table 1 indicate the eligibility gap between men and women. Specifically, there was a seven percentage point difference in eligibility between men (85%) and women (78%) in 1998, which narrowed to four percentage points in 2012—when 89 percent of men and 85 percent of women were eligible for retirement plans. Men's eligibility advantage has resulted in women lagging behind men in actual participation in employer-sponsored plans. Table 1 illustrates that beginning in 2006 and continuing through 2012, equal percentages of men and women participated in retirement plans provided by their employer.

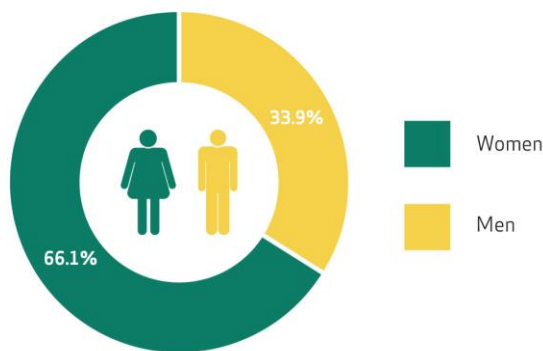
Specifically, in 2012, 63 percent of women worked in jobs where their employers offered either DB pensions or DC retirement account plans, but only 46 percent of women actually participated some type of retirement plan. This is due to the fact that nine percent of women in 2012 were not eligible for their employers' plans and seven percent of women who were eligible chose not to participate in their retirement plans. Figure 2 illustrates the participation for men and women in 2012.

Figure 2: **Access to, eligibility for, and participation in, an employer-sponsored retirement plan, by gender, in 2012**



Source: Authors' calculations using SIPP data.

Figure 3: **Percentage of part-time employees, by gender, in 2012**



Source: U.S. Department of Labor Women's Bureau, "Latest Annual Data - Chart 22: Distribution of full-time and part-time workers by sex, 2014 annual averages."

In 2014, the rate of part-time employment was twice as high among women as men (25.9% vs. 12.7%, respectively) (Women of Working Age, 2015). Overall in 2014, women represented two-thirds of the part-time work force, as displayed in Figure 3. The higher rate of part-time employment among women is a large factor in their lower eligibility rates for employer-sponsored retirement plans, as they may not work enough hours to be covered by their employers' plans (Jeszeck, 2012). Under the

Employee Retirement Income Security Act (ERISA) of 1974, private sector employers can limit eligibility in retirement plans until employees have worked at least 1,000 hours.³⁶

Another possible explanation for women's lower rates of retirement plan eligibility is that women may not remain in their positions long enough to meet the service requirements for employer-sponsored retirement plans (Shaw & Hill, 2001).⁴ Under ERISA, employers are able to impose a one-year waiting period upon new employees before they are able to participate in retirement plans.⁵ Historically, among employees age 25 to 34, the median job

⁴ Shaw & Hill find that hours worked per week and job tenure are positively related with participating in a pension plan.

⁵ See 26 U.S.C. § 410.

tenure for women is consistently lower than that for men.⁶ However, from 1998 to 2012, the difference in median job tenure among younger workers has narrowed from 3.8 years for males and 3.3 years for women in 1998, to 5.0 years for men and 4.6 years for women in 2014 (Copeland, 2015).

Table 2: Proportion of working women and men with employer that offered only a DC plan and the percentage of working women and men that participated in only a DC plan

	Offered a Plan	Percent of eligible employees that participate in a plan	Offered a Plan	Percent of eligible employees that participate in a plan
Year	Men		Women	
1998	41%	82%	41%	78%
2003	42%	84%	43%	79%
2006	41%	82%	45%	78%
2009	46%	80%	49%	79%
2012	45%	81%	46%	81%

Source: Authors' calculations using SIPP data.

In addition to looking at overall eligibility for any type of employer-sponsored retirement plan, there has been an underlying shift in the type of retirement plan offered to employees. Since the 1990's, many employers have ceased offering their employees a DB plan and now offer their employees only a DC plan. As of 1998, 41 percent of both men and women worked at employers that offered only a DC retirement plan. By 2009, the percent of women who worked at employers who only offered DC plans had reached 49 percent, while 46 percent of men were offered only DC plans. However, Table 2 shows that as of 2012, the rates of women and men who were offered only DC plans declined slightly to 46 and 45 percent, respectively.

One of the additional concerns of employees with only DC retirement plans is that their take-up rate is lower than those covered by any type of retirement plan. For example, in 2012, there was a five percentage point difference in the take-up rate between retirement plans overall and only DC plans (86 for all retirement plans to 81 percent for only DC plans). The ultimate concern for both men and women, who are covered by only DC retirement plans is whether the income they can obtain from their DC account adequately supports their expenses throughout their lifetimes. Women tend to contribute less to their individual DC retirement accounts and thus have smaller account values when compared to men (Chang, 2010). Yet, a 2015 report from Vanguard, based

⁶ Authors' calculations using data from Copeland, 2015.

on its three million participants, suggests that the contribution rates between men and women are fairly similar, with men contributing 6.8 percent and women contributing 7.0 percent to their DC accounts.

The ultimate balances in the DC retirement accounts of men and women reflect their different approaches to investment risk. Generally, women are less comfortable with risky investments. For example, while 50 percent of single men own stocks, only 36 percent of single women own stocks.⁴³ Another investment provider, Fidelity Investments, found that women hold more balanced portfolios than men, have higher asset allocations in blended assets, are invested more age appropriately than men, and are more likely to save (Fidelity Viewpoints, 2015). These factors may allow women to achieve the same or better rates of return than men over time. For example, finance professors Brad Barber and Terrance Odean found that female investors had better rates of return than male investors (Barber & Odean, 2001).

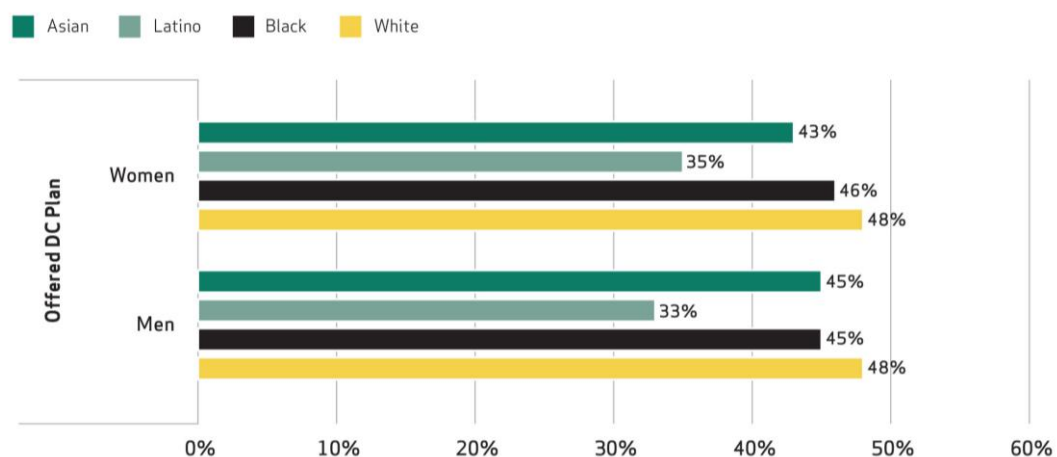
The Vanguard data (2015) illustrates that the gender gap provides men an advantage over women in DC accounts. The median value accumulated in Vanguard DC retirement accounts at the end of 2014 was \$36,875 for men, while women's accumulation was only \$24,446. Similarly, the average value accumulated in Vanguard DC retirement accounts for men was \$121,201, while women had accumulated only \$78,007. Additionally, Vanguard also reports that on average, women saved less than men in their Individual Retirement Accounts (IRA), with the average balance for a man equal to \$56,429 and the average balance for a woman equal to \$26,307. Few employers offer employees automatic ways to translate their individual DC account balances into lifetime incomes like DB pensions. Because women, on average, tend to live longer than men, they would need to stretch their smaller DC retirement accounts over more years in retirement by planning to withdraw fewer dollars each year, otherwise they put themselves at greater risk of outliving their retirement savings.

Households of color are far less likely to have dedicated retirement savings in individual DC accounts than white households of the same age (Rhee, 2013). When comparing the access to DC retirement accounts through employer-sponsored plans among racial groups, Figure 4 illustrates that Latino men (33 percent) and Latina women (35 percent) are significantly less likely to work for employers that offer their employees DC retirement plans. This lack of access is further compounded by the low take-up rates among Latino and Latina workers who are less likely to contribute to DC plans when they have an opportunity to save through their employers. Specifically, in 2012, 84 percent of white men and 83 percent of white women eligible to save in DC retirement accounts participated in employer DC plans; however, only

71 percent of eligible Latino men and 74 percent of eligible Latina women actually contributed to their DC retirement accounts. Black men and women also participated in DC retirement plans at similarly low rates when they were eligible to make contributions, with 73 percent of eligible black men and 74 percent of eligible black women contributing to DC retirement accounts in 2012. The participation take-up rate among all women of color is greater than the take-up rate among men of similar race, with Asian women having the highest participation take-up rate of 87 percent, for all racial groups.

Low access and low take-up rates contribute to the wide gap in DC retirement account balances between Latino and white households. Only one out of five Latino households had more than \$10,000 in retirement savings while one out of every two white households has more than \$10,000 saved for retirement in 2013 (Rhee, 2013).

Figure 4: **Proportion of working men and women with employers that offered DC plans, by race, in 2012**



Source: Authors' calculations using SIPP data.

III. Women's sources of income at retirement age

With longer life expectancies than men, women have a greater risk of exhausting their retirement savings (Social Security Administration, 2015). This is also due to lower Social Security benefits and less income from retirement accounts than men. Even though women and men face similar expenses for housing, food, and transportation, women face higher medical expenses and are more likely to need more expensive long-term care provided by a facility or a paid caregiver (WISER, 2014). These factors contribute to the rates in which women age 65 and older live in poverty in America, as nearly two-thirds of older Americans in poverty are women. This section discusses income levels, income sources, and poverty rates among individuals aged 65 utilizing data from the U.S. Census Bureau's Survey of Income and

Program Participation (SIPP). The data is analyzed for women and men, by marital status, income levels, age, and race.

In order to understand retirement income adequacy, we need to consider the amount of income that retirees will need to live in dignity in their communities, rather than exclusively focus upon poverty levels published by the Federal Government. Wider Opportunities for Women (WOW) and the Gerontology Institute at the University of Massachusetts Boston developed the Elder Economic Security Standard Index (Elder Index) as a benchmark for costs of living on both national and state levels. The Elder Index includes key expenses for food, affordable housing, transportation, and health care costs that are higher than the poverty levels established by the Federal Government (Gerontology Institute, 2012). Table 3 illustrates the national cost estimates from the Elder Index for individuals and couples based on their housing status. Because the Elder Index represents a minimum consumption standard, we utilized the Elder Index as a benchmark in our analysis of the income of older Americans. However, middle-and upper-income households will not just want to meet this standard, but will want to exceed this standard in order to maintain their pre-retirement standard of living when they stop working. Financial planners suggest that these individuals will need to replace about 70 to 85 percent of their earnings in retirement, which would be significantly higher than the Elder Index benchmark. Nevertheless, comparing the median income levels of men and women age 65 and older with the Elder Index's estimate of expenses offers an indication of the challenges that typical women face in order to meet basic living expenses.

Table 3: The Elder Economic Security Standard Index, U.S. Average Monthly Expenses for Selected Household Types, 2014

Expenses	Elder Person			Elder Couple		
	Owner without a Mortgage	Renter	Owner with a Mortgage	Owner without a Mortgage	Renter	Owner with a Mortgage
Housing	\$482	\$811	\$1,338	\$482	\$811	\$1,338
Food	\$252	\$252	\$252	\$463	\$463	\$463
Transportation	\$250	\$250	\$250	\$386	\$386	\$386
Health Care	\$410	\$410	\$410	\$820	\$820	\$820
Miscellaneous	\$279	\$279	\$279	\$430	\$430	\$430
Elder Index Per Month	\$1,673	\$2,002	\$2,529	\$2,581	\$2,910	\$3,437
Elder Index Per Year	\$20,076	\$24,024	\$30,348	\$30,972	\$34,920	\$41,244

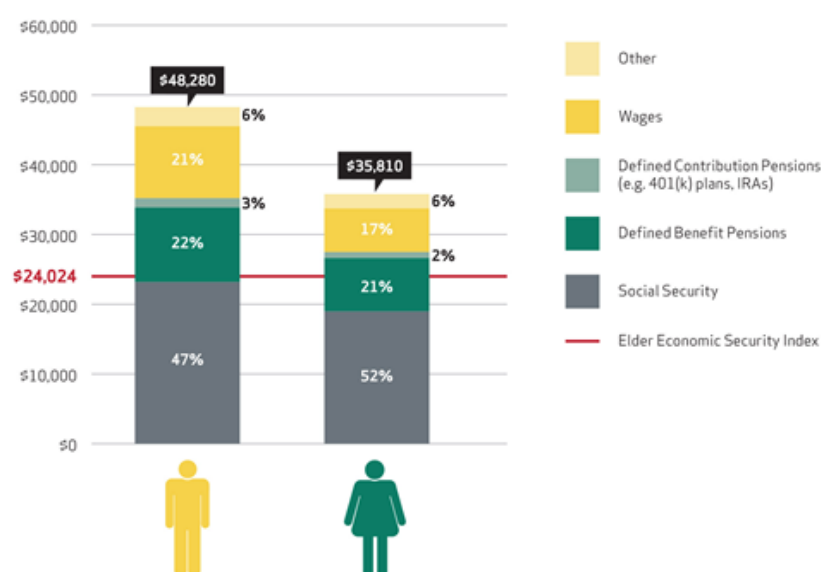
Source: Authors' calculations using SIPP data.

For example, the Elder Index estimates that an average single woman 65 and older needs \$2,002 per month if she rents a home. This amount increases to \$2,910 for an elderly couple, if they do not own a home. These cost figures are most likely on the conservative end. The estimate of \$410 a month for a retiree's health costs would total \$123,000 if she lived to age 90 and the cost remained constant. In comparison, Fidelity Viewpoints' (2014) most recent estimate of the amount of savings needed for health care in retirement was of \$220,000. for both men and women, and the Employee Benefits Research Institute (EBRI), estimated in 2012 that a 65 year old woman would require \$154,000 to \$210,000 in order to cover medical costs in retirement, depending on how much she spends on prescription drugs (Fronstin, 2012).

The following analysis focuses on household income—that is, the income of the households of which each older individual belonged. In most cases, a household consists of one family, though in some instances, households also include unrelated individuals.

Payments from Social Security are the largest source of income for the majority of older Americans, especially if they no longer work. Social Security benefits account for 90 percent or more of the income received by nearly half of unmarried women, including widows, aged 65 and older. In 2014, the average Social Security income received by women 65 years and older was only \$13,824, compared an average benefit for men of \$17,911 (Social Security Administration, 2014). With scheduled changes to the normal retirement age still to take effect, many more women will need to supplement their Social Security benefits with their own retirement savings in the years ahead.

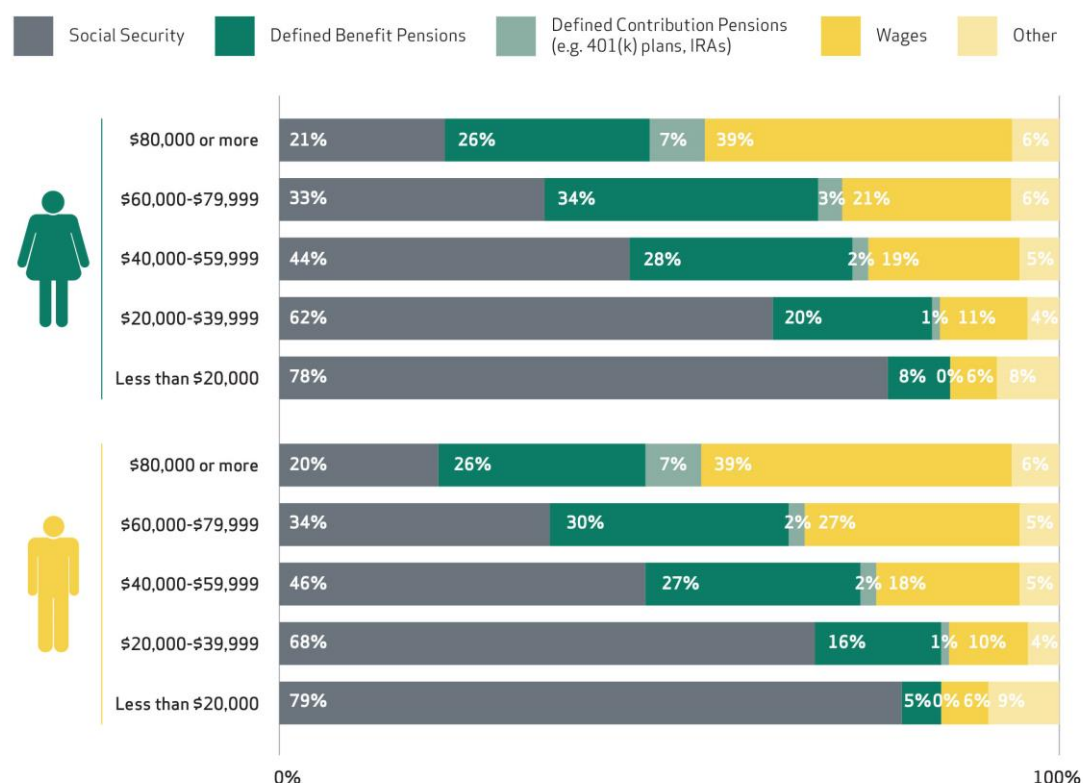
Figure 5: The composition of median household income in relation to the Elder index, for men and women, age 64 and over, in 2013



The key role that Social Security retirement benefits play for women is confirmed by the SIPP data. In 2013, the median household income for men age 65 and older was \$48,280 and for women it was \$35,810—approximately 25 percent less. Figure 5 illustrates this difference and breaks down the sources of retirement income for both women and men in 2013. For women age 65 and older, Social Security provided 52 percent of household income, five percentage points higher than men. The next largest sources of retirement income came from DB pension plans, which provided 21 percent of income for women. Withdrawals from DC plans provided for two percent of income, and other sources (public assistance, personal savings, etc.) provided six percent of income for women age 65 and older. Compared to men of the same age, women aged 65 and over depended on DB and DC pensions at a slightly lower rate—one percentage point less. Lastly, wages provided the third largest source of income for both men and women age 65 and older, accounting for 21 percent of men's incomes and only 17 percent of women's incomes.

Considering the income of older Americans across income brackets clearly illustrates the impact of wage income among those at higher income levels. Figure 6 indicates that for both men and women with household incomes greater than \$80,000, in 2013, wages provided the largest share of income at 39 percent. Given that ownership of DC retirement accounts increases with higher income levels, and the wealth in DC retirement accounts for baby boomers is highly concentrated, it is not surprising that funds from DC retirement accounts are a visible source of income for those with incomes above \$80,000, yet are not prevalent for households under \$80,000 (Rhee & Boivie, 2015; Bovbjerg, 2006). Figure 6 also illustrates that as household income increases for men and women, their dependence on Social Security decreases. It also shows that the share of household income made up by DB pensions increases throughout the \$60,000 to \$79,999 income bracket and then drops marginally for households with income \$80,000 and higher. This indicates that payments from DB pensions are an important source of financial security for middle-income (\$40,000 to \$79,999) men and women who receive more than one-third to one-quarter of income from DB pensions.

Figure 6: **The composition of household income for women and men, age 65 and over, by total household income, in 2013**



Source: Authors' calculations using SIPP data.

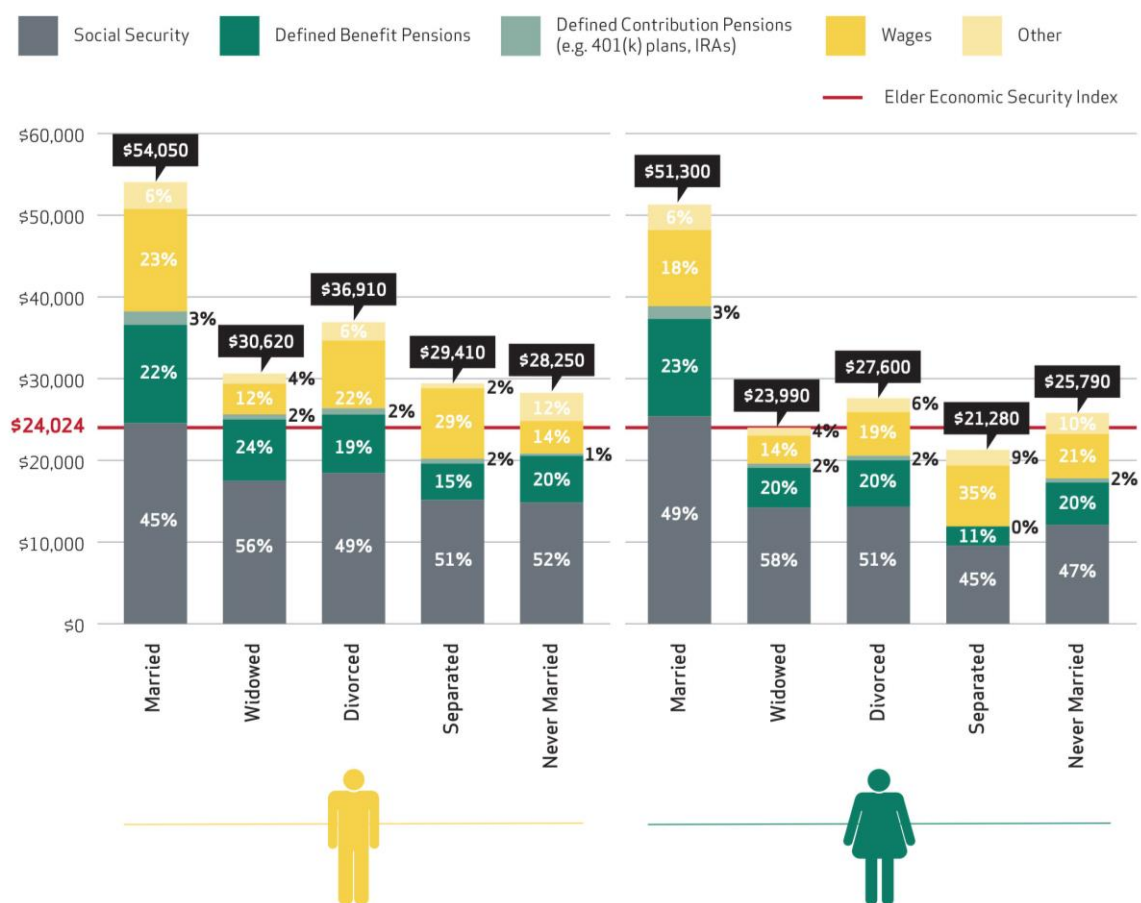
The SIPP data on median household incomes show that marital status has a large impact on income level and composition. To begin, there is only a small difference between incomes of married men and married women, given that the two sets of households largely overlap, except in cases where spouses live apart. However, Figure 7 shows that married men and women depend on Social Security for 45 percent of their income, which is a lower rate than any other marital group, because they have significantly higher income from other sources. Widowed men and widowed women depend on Social Security benefits for 56 and 58 percent of their income, respectively. Widowed men and women also have the lowest wage income of any marital group, due to both their older age and the lack of wage-earning household members. Divorced women depend on Social Security income at a rate of 51 percent—slightly more than that of divorced men. Separated men depend on Social Security at a higher rate than separated women, with a six percentage point difference between the two. Similarly, never married men depend on Social Security at a rate of that is five percentage points higher than that of never married women.

Figure 7 also shows DB pension income provides a fairly consistent source of income across

most marital subgroups providing roughly 20 to 24 percent of income to married, widowed and single men and women. However, separated individuals depend on DB pensions the least, with separated men receiving DB pensions for only 15 percent of their income and separated women receiving DB pensions for only 11 percent of their income. Additionally, no matter the marital status, DC accounts provide only a negligible amount of income to both older men and older women.

The reductions in benefit payment from Social Security and DB pension income due to a spouses' death illustrated in Figure 7 help explain the growing rates of poverty among this subset of women. Widowed women are twice as likely to live in poverty at and after retirement age than their male widower counterparts. The Government Accountability Office (GAO) confirms the detrimental impact that divorce and widowhood can have on women's financial security (Jeszeck, 2012). Even though payments from DC accounts are very modest for those over age 65, it should be noted that there is no required legal protection for spouses under DC plans, in the event of a spouse's death.

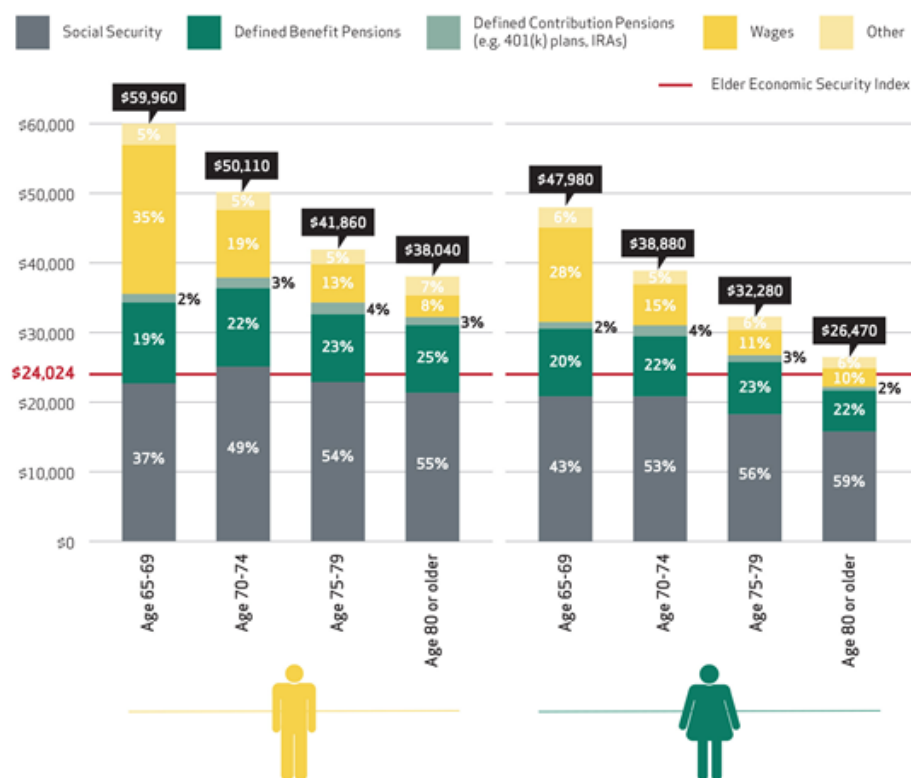
Figure 7: **The composition of median household income in relation to the Elder Index, for men and women, age 65 and over, by marital status, in 2013**



At older ages, the median incomes of both men and women declined and the difference by gender grew wider. The median income for women ages 65 to 69 was \$47,980, which was only 80 percent of the \$59,960 median income for men in the same age group. In individuals aged 80 years and older, the median income for women fell to \$26,470, just 70 percent of the \$38,040 median income of men.

As illustrated in Figure 8, among older individuals, wages represent a declining share of household income and generally men have a higher share of income from earnings compared to women. Specifically, between ages 65 and 69, wages comprised 35 percent of household income for men and 28 percent of household income for women. However, after age 80, wages shrunk to just eight percent of income for men, while they provide ten percent of income for women age 80 and over. Similarly, combined retirement income from Social Security, DB pensions and DC accounts represented 65 percent of income for women age 65 to 69 and 82 percent of income for women over age 80. There is a slight uptick in the modest percentage of income received from DC accounts after age 70. This increase is likely related to the tax code requirement that individuals after age 70.5 begin minimum distributions from their retirement accounts. It should be noted that for women over age 80, some would be unable to obtain income needed for basic expenses without earnings from wages.

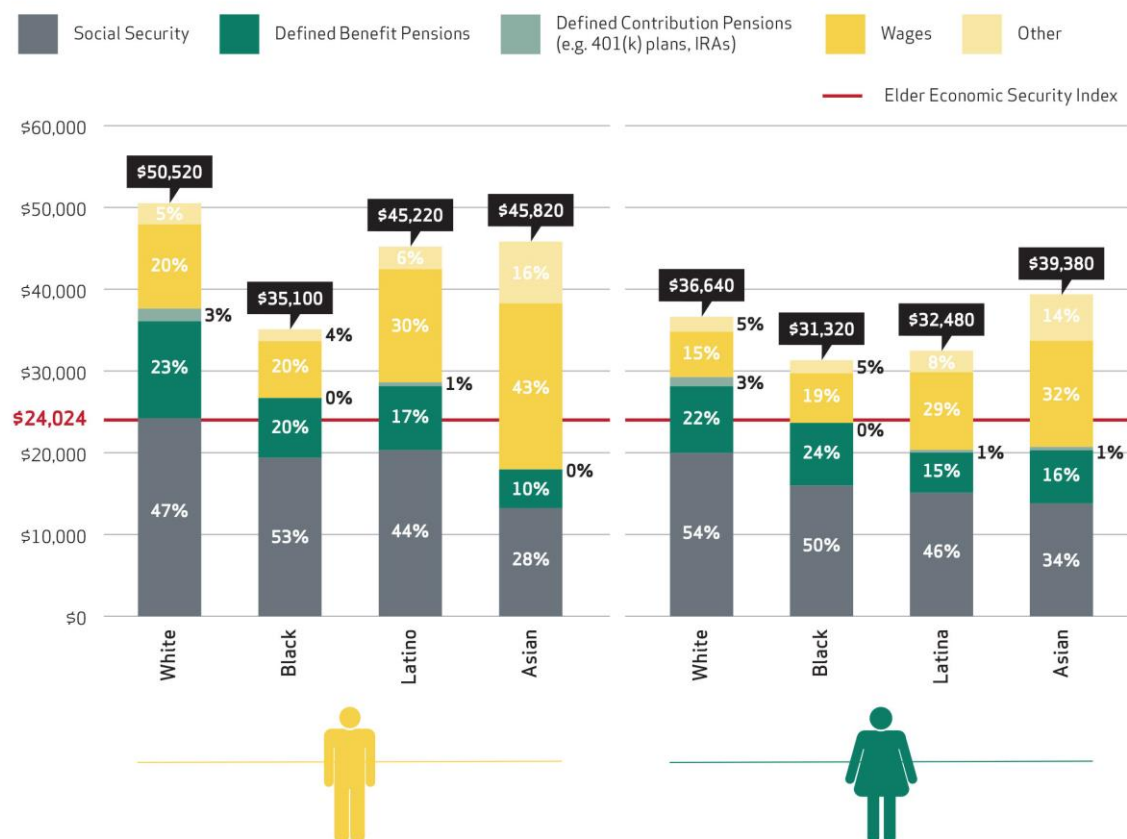
Figure 8: The composition of median household income in relation to the Elder Index, for men and women, age 65 and over, by age, in 2013



Source: Authors' calculations using SIPP data.

The SIPP data reveals rather divergent income levels among racial groups. Figure 9 shows that both white and black women rely on Social Security for a majority of their income, while black men are the only male group that relies on Social Security for a majority of their income. Whereas, Latina women rely on Social Security for approximately 46 percent of their income. Latinas and Asian women both rely on close to one-third of their income from wages, whereas Asian men almost depend on half of their income from wages, as opposed to whites, blacks or Latinos. Both Latinas and Asian women have increased their reliance on DB pension income at retirement. Again, it should be noted that without income obtained from earnings, both Latino, Black and Asian women, would not be able to obtain the amount of income needed for basic expenses without earnings from wages.

Figure 9: **The composition of median household income in relation to the Elder Index, for men and women, age 65 and over, by ethnicity, in 2013**



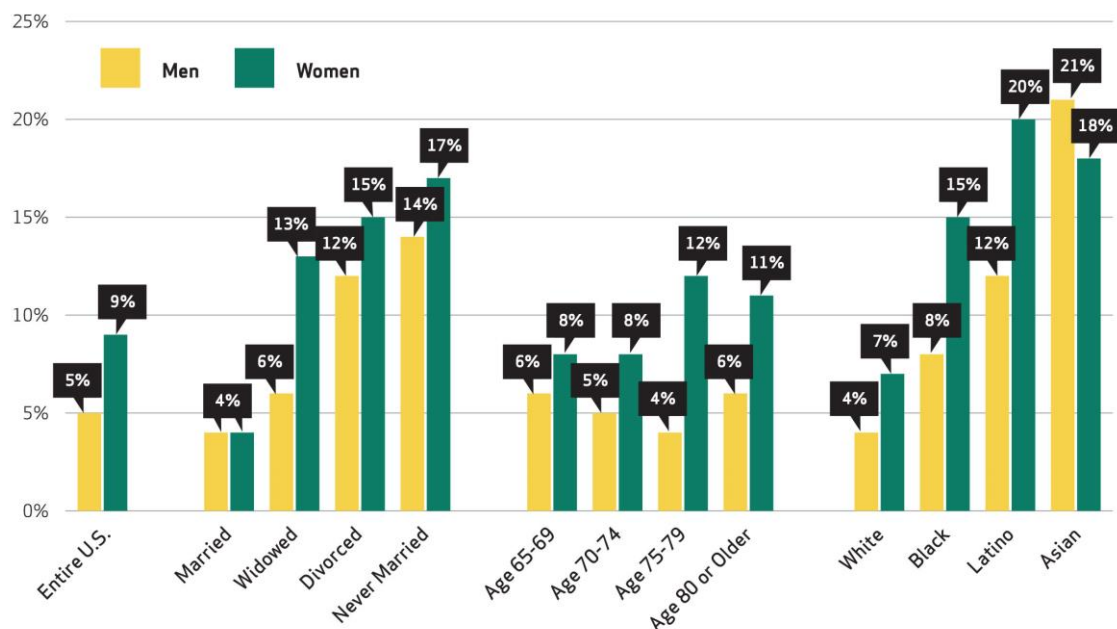
Source: Authors' calculations using SIPP data.

Figure 10 shows that in 2013, women were 80 percent more likely than men to be impoverished at age 65 and over. The median income of women age 65 and older is consistently 25 percent lower than the median income of men of the same age, yet the poverty gap widens over time

due to increased poverty rates for women at older ages. While women age 65 to 69 are just 33 percent more likely to live in poverty than men, women aged 75 to 79 and over the age of 80 are three times and twice as likely, respectively, to live in poverty compared to men.

Poverty rates vary widely among marital status and race, following differences in median income, with widowed men and women and Latino men and women more disadvantaged than other groups. In terms of gender differences, white and black women are almost twice as likely to be living in poverty than their male counterparts, whereas Asian men are more likely to be living in poverty than Asian women.

Figure 10: **Poverty rates by demographic category, in 2013, for women and men, age 65 and over**



Source: Authors' calculations using SIPP data.

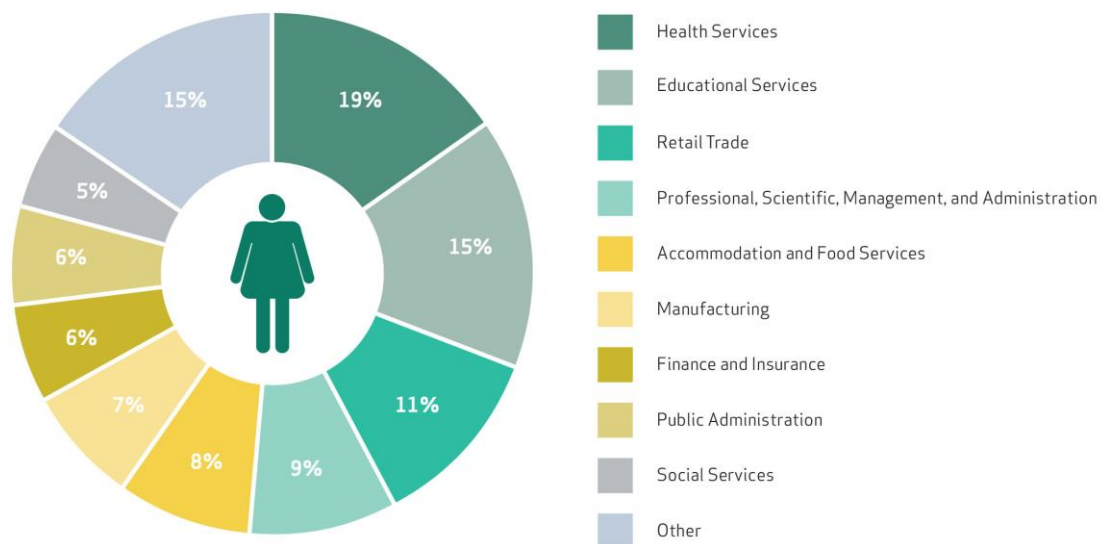
IV. Women in education, public administration and healthcare are more likely to have a DB pension, less dependent on Social Security, and less likely to fall into poverty during retirement

Historically, women worked predominantly in clerical or sales work, manufacturing, domestic service, education, and health care. This trend has continued in 2012, as represented in Figure 11. In this section, we will focus the top three industries in 2012 for women—health care, education and retail trade—in addition to public administration, unless noted.

Women in educational and public administration fields receive less income from Social

Security when they are 65 and older than women in other industries because not all public sector employees participate in Social Security. This is due to the fact that numerous states maintained DB pensions before the federal government allowed public employees to participate in Social Security and a number of states and other public employers later chose not to elect into the Social Security system. According to the National Education Association, public employees in the following states do not participate in Social Security: Alaska, California, Colorado, Connecticut, Illinois, Louisiana, Maine, Massachusetts, Missouri, Nevada, Ohio, and Texas. Thus, for educators and public administrators in these states, women's household incomes in retirement would not include benefits from Social Security for the years that they participated in the state's public pension plan.

Figure 11. **Women's employment, by industry, in 2013**



Source: Authors' calculations using SIPP data.

A significant share of workers in the health services and educational services still have access to DB pensions. Most kindergarten to 12th grade teachers are covered by public DB pensions (Oakley & Boivie, 2014). The same is true for hospitals and healthcare systems, which held back from following the rest of the private sector in transitioning from DB to DC plans. Standard and Poor's reported in 2010 that only 40 of the 615 not-for-profit hospitals and health systems have abandoned their DB plans, leaving 575 hospitals and health systems with DB plans (Commins, 2010). Because many teachers and health professionals are offered a DB pension, they are also more likely participating in a retirement plan, as coverage by a DB plan may be required—particularly if the work is not covered by Social Security.

Based on SIPP data, as indicated in Table 4, women in public administration have the highest rates of employer-provided retirement coverage, with just 11 percent of women in the industry not covered by retirement plans. And only 16 percent of employees in education are not covered by a retirement plan. Twenty-six percent of women in the health services sector and 39 percent of women in the retail sector are not offered retirement plans with their employers. In both public administration and education, the predominant form of retirement plans is DB pensions which cover 54 percent and 46 percent of women, respectively. Twenty-seven percent of women in health services are offered a DB plan, but only 18 percent of women employed in the retail trade industry are offered a DB plan.

Forty-seven percent of women in health services are offered an employer sponsored DC plan only followed closely by the retail trade sector at 43 percent. Next, 37 percent of women in educational services and only 33 percent of women employed in public administration are offered only a DC plan.

Table 4: Percentage of women who are covered by a retirement plan by their employer, by top industries, in 2013

Industry	Both DB and DC Coverage	DB Coverage Only	DC Coverage Only	No Coverage
Health Services	10%	17%	47%	26%
Educational Services	14%	32%	37%	16%
Retail Trade	5%	13%	43%	39%
Public Administration	21%	35%	33%	11%
Professional, Scientific, Management, and Administration	7%	11%	40%	43%
Accommodation and Food Services	2%	7%	29%	62%
Manufacturing	9%	16%	46%	29%
Finance and Insurance	13%	18%	53%	15%
Social Services	4%	11%	35%	50%

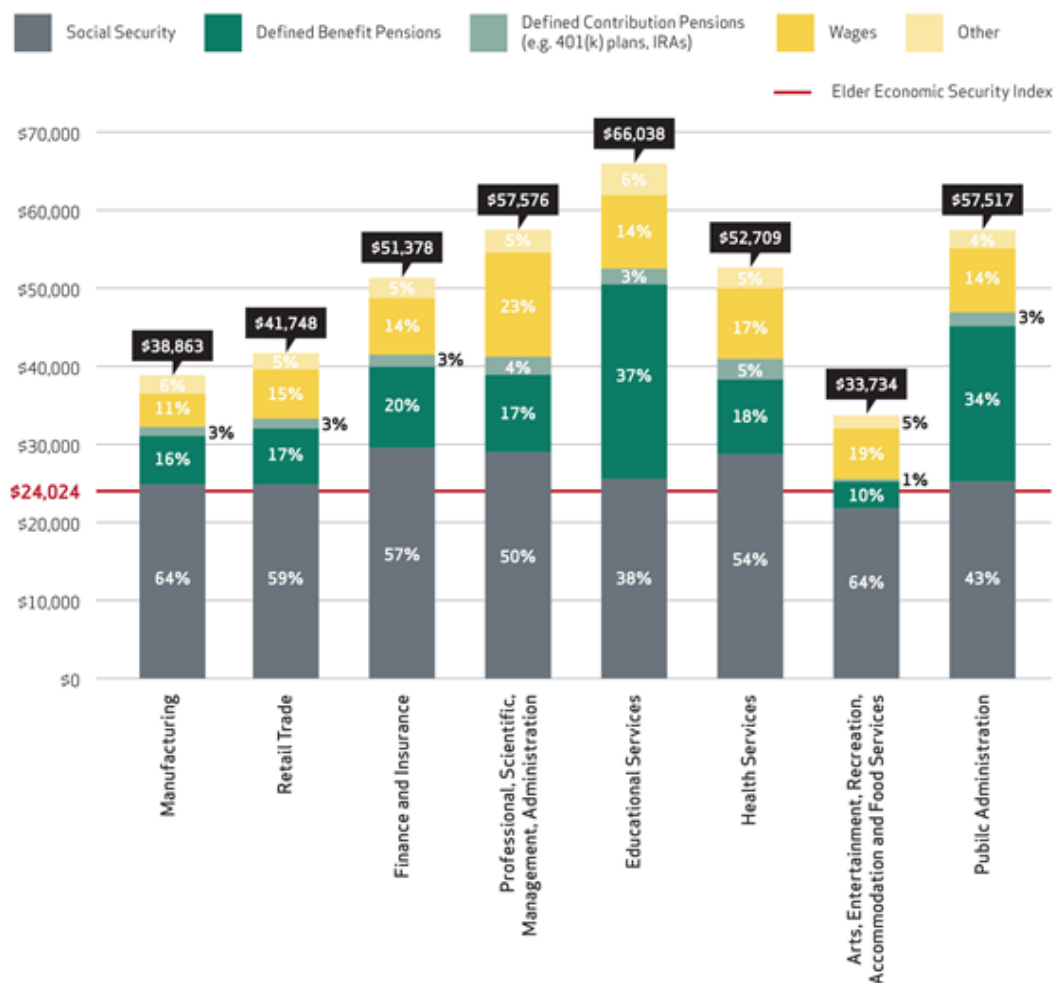
Source: Authors' calculations using SIPP data.

During their working careers, teachers earn less than 80 percent of the weekly wages earned by non-teaching women college graduates employed in the private sector (Allegretto & Tojerow, 2014). Yet among women 65 and older in the education sector, a combination of high coverage rates in DB pension plans due to immediate and mandatory participation and longer job tenure helps to generate higher average household incomes during retirement compared to women in other sectors. As shown in Figure 12, women educational services have an average

household income of \$66,038. Women in public administration who also are covered by public pension plans, have an average household income of \$57,517. Women age 65 and older who are employed in the health services have an average household income of \$53,709, which also correlates with their high rates of DB coverage. In contrast, women employed in the retail trade industry have one of the lower household incomes by industry, with an average household income of \$41,748 and are correspondingly, less likely to be covered by a DB pension.

As indicated by Figure 12, women in the educational and public administration industries are more likely to have access to a DB pension and coverage under Social Security is significantly lower than that of women in other industries. Overall, women in educational services receive less income from Social Security, which only composes 38 percent of average household income for those in education. Similarly, public administrators receive income from Social Security at a low rate compared to other industries, with only 43 percent of average household income coming from this source.

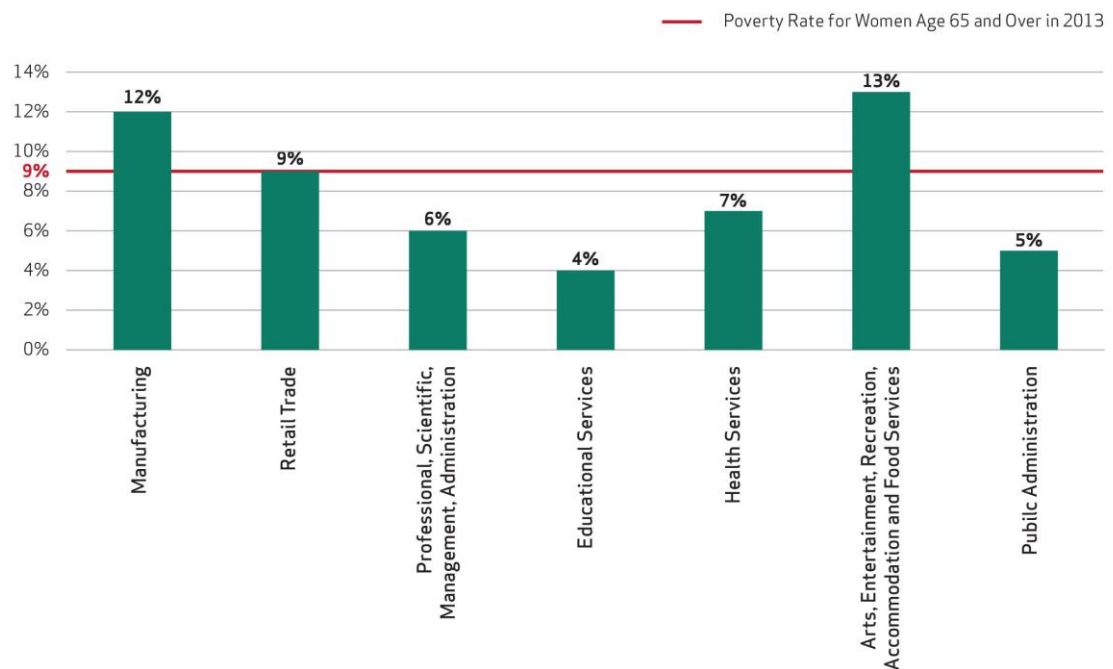
Figure 12: Composition of average household for women aged 65 and over, by industry, for 2013



Source: Authors' calculations using SIPP data.

As displayed in Figure 13, the poverty rates of women 65 and older in the educational and public administration industries are lower than any of the other selected industries, with rates of four percent and five percent, respectively. Women in health services have a poverty rate of seven percent, while women in retail trade have a poverty rate of nine percent. Given the low poverty rates, high rates in which women are offered a DB plan, and high household income rates at retirement for women in the educational and public administration fields, it appears that their DB pensions—which provide a steady income during retirement—are successful in keeping these women out of poverty.

Figure 13: **Poverty rate of women, by industry, for 2013**



Source: Authors' calculations using SIPP data.

Examples of DB pensions working in education

The California State Teachers Retirement System (CalSTRS), the third largest retirement plan in the U.S., has operated for more than 100 years. CalSTRS encourages teachers to remain in the state's school systems and the fact that three-quarters of classroom teaching in California is performed by long-career teachers marks the DB pension's success as a workforce management tool.

According to a recent study, DB benefits from CalSTRS provide 86 percent of teachers with higher and more secure retirement income compared to a 401(k) style plan. While new teacher turnover is high, those who stay, tend to stay a full career. Thus those who leave before vesting represent a small fraction (just six percent) of the overall teaching workforce, and the typical California classroom teacher will work into their early 60s with 29 to 30 years of teaching. In light of this, moving to a DC plan would reduce the retirement income of most teachers. Since California educators do not receive Social Security benefits for their CalSTRS-covered employment, a modest but secure retirement income is essential for their future financial security.

In 2015 the Colorado state auditor commissioned an actuarial analysis of the retirement benefits provided under the Colorado Public Employees Retirement Association (COPERA). The report found that portability provisions that encourage employees to maintain their member accounts until reaching normal retirement age produce COPERA benefits that exceed projected benefits in all alternative plan designs when cost are kept the same. For example, a non-vested employee with just 3 years of service would receive more retirement income from COPERA 4.4% of final pay instead of a 3% in a typical DC account by letting their funds accumulate in COPERA members' accounts until the 100% match was available at age 62.

Staying with the DB pension format and making small and modifications such as the portability match in COPERA or indexing of final salary to inflation for those who leave before retirement age could prove more cost effective than a wholesale switch in plan design. It would keep the important retention benefit which encourages experienced teachers to stay in education while assuring that older teacher have adequate resources to retire in a predictable manner.

Sources: Rhee, N., & Forna, W. (2016, February). "Are California Teachers Better off with a Pension or a 401(k)?", http://www.calstrs.com/sites/main/files/file-attachments/are_california_teachers_better_off_with_a_pension_or_a_401k.pdf; and Thompson, L. (2015, July) "A Comprehensive Study Comparing the Cost and Effectiveness to Alternate Plan Designs Authorized by Senate Bill 14-214." [http://www.leg.state.co.us/OSA/coauditor1.nsf/All/10A3590D2063592E87257E70004B7FBD/\\$FILE/1409P+-+.+](http://www.leg.state.co.us/OSA/coauditor1.nsf/All/10A3590D2063592E87257E70004B7FBD/$FILE/1409P+-+.+)

V. Public policy recommendations

With all Americans facing greater economic risks, and women in particular facing lifelong disparities in earnings, growing poverty rates, and unique challenges during retirement, policymakers should consider strengthening the American retirement system to protect all individuals—especially women. This section discusses the current public policy options that have been suggested by various organizations to help strengthen retirement security for women.

Strengthen Social Security Benefits for Women

Without income from Social Security, nearly half of all women aged 65 and older would be living in poverty. The average Social Security benefits for women aged 65 and over of \$13,824, however, is significantly below the expense levels outlined in the Elder Index. Enhancing Social Security benefits is a key strategy to increase women's retirement security as it provides virtually universal coverage; portability between jobs; pays benefits according to a progressive formula; provides inflation-protected lifetime income; offers spousal benefits; and is cost effective (Entmacher & Matsui, 2013).

Organizations such as the National Women's Law Center, Social Security Works and others have called for improvements to Social Security for women. Their recommendations include improving the surviving spousal benefit, for example, by providing an alternative benefit equal to 75 percent of the sum of the spouses' combined worker benefits. Another proposal would improve the cost of living adjustment by adopting the Consumer Price Index for the Elderly (CPI-E) which reflects more closely the types of expenses of older Americans (Entmacher & Matsui, 2013). Another proposal would help protect divorced women by lowering the number of years of marriage required to receive Social Security spousal benefits to seven years, down from ten years currently. Proposals for Social Security caregiver credits would support women who need to leave the workforce temporarily to care for children or elderly relatives, interrupting their contributions to the Social Security system. Proposals to enhance the Social Security Special Minimum Benefit, which due to its design structure does not currently reach any new retirees, would support male and female workers who have spent long careers working at low wages.

Automatic Enrollment in Individual Retirement Accounts (Auto IRA)

Automatic enrollment in payroll deduction IRAs, commonly referred to as Auto IRAs, evolved as a bipartisan proposal from the Brookings Institute and the Heritage Foundation based on success of automatic enrollment in 401(K) plans that automatically enroll their workers and let them opt out if they choose (Harris & Johnson, 2012). As AARP summarizes this simple idea: “[b]y removing administrative barriers to saving, automatic enrollment can increase the likelihood that workers will contribute to retirement” (Harris & Johnson, 2012).

Auto IRA studies have found that automatic enrollment boosted initial enrollment from 37 percent to 86 percent and that Auto IRA policies increase the overall savings of employees (Madrain & Shea, 2001; Gale, Iwry, Orszag, 2005). Furthermore, economists Benjamin Harris and Ilana Fischer found in a report for AARP that between 24 million and 43 million workers, or one-fourth of the workforce, would be eligible for automatic enrollment and more than 80 percent of the population that is eligible for automatic enrollment earn less than \$50,000 in wages and that one-third earn less than \$20,000 in wages. A detailed analysis of Auto IRA proposals by the GAO found that 36 percent of U.S. households would see at least modest increases in household income—with the most significant occurring at the lowest earning levels (Jeszeck, 2013).

The Obama Administration repeatedly proposed using auto-enrollment in IRAs in budget proposals, including the most recent budget for fiscal year 2017. Additionally, several Congressional bills—including legislation in the House (H.R. 6099) and Senate (S. 3760), have proposed expanding retirement plan coverage through Auto IRAs (Harris & Johnson, 2012).

Saver’s Credit

The “Elective Deferrals and IRA Contributions by Certain Individuals” credit enacted in 2001, is commonly referred to as the “Saver’s Credit”.⁷ The Saver’s Credit is a non-refundable income tax credit for taxpayers with adjusted gross incomes of less than \$30,500 for single filers and \$61,000 for joint filers. The Saver’s Credit provides a “match” through a non-refundable tax credit of up to \$1,000 for a voluntary contribution to a traditional IRA, Roth IRA, or to contributions to Internal Revenue Code qualified plan such as a section 401(k) plan; section 403(b) plan; section 457 plan; SIMPLE plan; simplified employee pension (SEP); or a

⁷ See 26 U.S.C. § 25B. § 25B was added by Section 618 of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), Public Law 107-16, 115 Stat 38.

qualified defined benefit pension plan.⁸

While the Savers Credit is intended to promote tax-qualified retirement saving by moderate- and lower-income earners, eligible taxpayers underutilize this credit. Few workers at those income levels are aware of the tax credit and many cannot claim it since they do not have sufficient tax liability to receive the credit. The Congressional Budget Office (CBO) calculated that in 2006, 25 percent of all workers who filed tax returns were eligible to claim the Saver's Credit based on their income and tax liability, resulting in only a three percent of those filers that were eligible claiming the credit (Congressional Budget Office, 2011).

Many scholars, members of Congress, and President Obama have called for this credit to become refundable so that workers in the lowest income brackets can benefit from this credit.⁹ A refundable credit was proposed in President Obama's 2009 budget proposal, Rep. Richard Neal (D-MA) introduced the Retirement Simplification and Enhancement Act of 2013 (H.R. 2117) to make the Saver's Credit fully refundable, deposited in an employer-sponsored retirement plan or IRA designated by the eligible taxpayer, and most recently Sen. Ron Wyden (D-OR) has introduced the Encouraging Americans to Save Act (S. 2492) which would make the Saver's Credit fully refundable, deposit the credit into a taxpayer savings account, and simplify the credit. The GAO modeling discussed earlier also considered the impact of combining the Saver's Credit with Auto IRAs and found that 74 percent of all households would benefit from both proposals becoming law and the financial impact would be a 21 percent increase in future retirement incomes for those households in the lowest income levels (Jeszeck, 2013).

Development of State Retirement Savings Plans

Given that approximately 68 million U.S. employees do not have access to a retirement account through their employer and the gap between what many Americans have saved for retirement and what they will need to support themselves in retirement, a number of states have enacted state-sponsored savings programs that automatically enroll individuals that are not covered by an employer-sponsored retirement plan (Mitchell & Smith, 2016). Oregon, California, Connecticut, Illinois, and Massachusetts have led the way in "Secure Choice" programs that automatically enroll eligible individuals in a retirement plan. Other states such as Minnesota, Indiana, Virginia, Maryland, New Jersey, New York, Vermont, and Maine are considering

⁸ See 26 U.S.C. § 25B.

⁹ These include David John, William G. Gale, J. Mark Iwry, Representative Earl Pomeroy, and Representative Richard Neal.

similar arrangements (Look to the States for Innovation).

In response to these actions by states, on November 18, 2015, the Department of Labor issued a proposed rule and interpretive bulletin regarding savings arrangements established by states for non-governmental employees (Savings Arrangements... 2015, Interpretative Bulletin... 2015). The proposed rule and interpretive bulletin opens the door for states to move forward on implementing such plans.

Based on national census data, individuals who are not currently covered by an employer-sponsored retirement plan, include workers who are: lower income; less wealthy; female; young; people of color; not married, part-time employees, and employed by a small business (Oakley & Brown, 2016). Proposed state-sponsored plans can help provide low cost retirement products to sectors of the population who are currently not covered by a plan. This in-turn will help to alleviate the current retirement savings crisis Americans feel the nation is facing today (Oakley & Kenneally, 2015).

Increase DC Plan Eligibility for Part-Time Workers

Currently, under ERISA, an employer can delay an employee's participation in an employer-sponsored retirement plan until the employee completes one year of service and/or has completed 1,000 hours of service. As identified by advocates Joan Entmacher and Amy Matsui (2013), employers are also able to exclude groups of employees based on a "reasonable classification" such as being an hourly employee as opposed to being a salaried employee, allowing part-time workers to be excluded from coverage.

President Obama's 2016 fiscal year budget proposal, the Retirement Simplification and Enhancement Act of 2013 (H.R. 2117), and the Women's Pension Protection Act of 2015 (S. 2110 and H.R. 4235) proposed to revise ERISA so that a 401(k) plan is not permitted to exclude an employee from eligibility based on service if the employee has worked at least 500 hours a year, for at least three consecutive years. Such a policy could help fill a gap left by state auto-IRAs, which generally do not cover an employer that offers a plan to any of its employees, even if a large number are not eligible.

Provide Spousal Protection Provisions in DC Plans

One of the consequences of women's lower lifetime earnings is that women are more likely than men to rely on their spouses' retirement benefits (Entmacher & Matsui, 2013). NIRS found that in 2012 that over 21 percent of all women aged 60 and over received DB pension income from their spouse (Porrell & Oakley, 2012).

Congress established robust spousal protections for women under the Retirement Equity Act which required payment of a joint and survivor spousal annuity as the default form of benefit to married DB pension participants. In most DC plans, however, the same protections do not apply to retirement savings in DC accounts because they are paid as lump sums (Entmacher & Matsui, 2013). No spousal consent is required if the DC participant retires or changes jobs and decides either to withdraw the account balance as a lump sum, or to roll the account balance into an IRA. Joan Entmacher and Amy Matsui explain more about IRAs:

Further, although spouses may have rights under state community property law, IRA account holders are not required, under federal law, to obtain spousal consent to either elect to receive account funds in a form other than a joint and survivor annuity, or designate a beneficiary other than a spouse. As a result, if DC plan account funds are rolled over into an IRA following a job change or retirement, those funds are shielded from joint decision-making, and can be placed out of the reach of spouses when they need it most, in an intact marriage.

Two legislative proposals, one in the Senate and one in the House, S. 2110 and H.R. 4235, introduced by Sen. Patty Murray (D-WA) and Rep. Janice Schakowsky (D-IL-9), seeks to resolve these issues. Both bills amend ERISA to extend spousal consent requirements to DC plans.

Defined Benefit Pension Plans

Clearly, monthly benefit checks from DB pension plans are an important source of income in retirement for women and men over age 65, as they provide approximately 20 percent of household income for older Americans. Like Social Security, the predictable nature of payments from DB pensions encourages retirees to spend their pension checks, which supported \$943 billion in economic activity in the United States in 2012 (Boivie, 2014).

As a result of the shift among private sector employers to increasingly offering employees only DC retirement plans, younger workers are half as likely today's near-retirees and retirees to have DB pension income when they retire (Rhee & Boivie, 2015). With only half of private sector workers participating in an employer-sponsored retirement plan in any year, coupled with low levels of savings in retirement accounts held by typical working households, the potential for DC retirement accounts to generate adequate lifetime income for future generations is not guaranteed (Rhee & Boivie, 2015). Recurrent changes to the laws governing DB pension plans, including the Pension Protection Act of 2006 that introduced unpredictable cost volatility in private DB pensions, have caused many corporate employers to freeze their

DB pensions (Boivie, 2011).

Policymakers should consider proposals to stabilize employer costs for DB pensions in the private sector, such as encouraging cost-sharing with employees and allowing pre-tax treatment for such employee contributions to DB pensions (Boivie, 2011). Additionally, more flexible plan design options for DB plans have worked in other nations and could address some concerns of corporate employers in offering new DB pension plans (deFrehn & Shapiro, 2013). Policymakers should consider modified DB pensions along those lines that preserve key features of traditional DB pensions, but offer some flexibility to employers. In particular, policymakers should strive to find ways to maintain current DB pensions and facilitate the growth of new DB pensions in order to provide future retirees with a predictable source of income when they retire which this study indicates is so valuable to older Americans today (deFrehn & Shapiro, 2013).

2. Methodology

To analyze factors that affect women's retirement security, we examined: (1) how prepared are working-age women for retirement in terms of retirement plan participation, retirement account ownership, account balances, and ownership of other assets; (2) what are the distinct challenges posed by the prevailing system for women to accumulate retirement assets, including earnings, financial literacy, the division of labor, and the current design of retirement benefit plans; (3) what are the differences in retirement outcomes for working women produced by key types of retirement plans; and (4) what effect has the shift from DB to DC plans had on women.

To answer our questions, we obtained information from the Survey of Income and Program Participation (SIPP). We analyzed data collected through the SIPP, a nationally representative survey conducted by the U.S. Census Bureau that collects detailed information on income sources and pension plan coverage, among many other areas. The survey is conducted in a series of national panels, with sample sizes ranging from approximately 14,000 to 36,700 interviewed households. The duration of each panel ranges from 2.5 years to 4.0 years. Within each panel, the data are collected in a series of "waves" which take place in four-month cycles. Within each wave, Census administers a core survey consisting of questions that are asked at every interview, and several modules relating to a particular topic.

For information on pension plan sponsorship, eligibility and participation, we utilized SIPP 2008 panel wave 11, gathered December, 2011 through March, 2012. The sample was limited to those who had a job or business during sample period and who were ages 18-65. To gather

information on income sources, we utilized SIPP 2008 panel wave 16, gathered August through November, 2013, and the sample was limited to respondents ages 65 and over.

To determine the proportion of men and women that: (1) work for an employer that offers a plan, (2) are eligible for a plan, and (3) participates in a plan, we used data from the SIPP topical module on retirement and pension plan coverage. Specifically, we constructed five dummy variables using a combination of various questions in SIPP. The table below shows the information we used to construct each variable. For each of these variables, we used individual level weights to compute point estimates.

Variable	Constructed with
Worker has employer that offers either a DB or DC pension plan to some employees	A combination of two questions. One question asks whether the individual's job or business has any kind of pension or retirement plan for anyone in the company or organization, and a subsequent clarifying question asks if the individual's job or
Worker has employer that offers a DC pension plan to some employees	A combination of questions. If the respondent replied yes to the question listed above, a follow-up question is asked about whether the respondent participates in the plan, and if so, the type of plan. This series of questions enables us to identify, among those who participate, whether the individual's employer offers a DC plan. For those who do not participate in the plan, a question asks whether the plan is a DC plan. Moreover, for those who said that their employer does not offer a plan, and those who said their employer offers a pension plan but it does not include a DC-type component, SIPP asks a follow-up question about whether the employer offers a DC-type plan. By combining these sets of questions, we were able to construct a
Worker is eligible for employer sponsored plan	SIPP asks the reason for not participating in an employer's pension plan. We defined individuals as not eligible if they listed one of the following reasons for not participating: no one in their type of job is eligible; they don't work enough hours, days, weeks or months; they don't have enough tenure in the job; they are too young; they started their job too close to
Worker participates in employer sponsored DB or DC plan	A combination of two questions. One question asks whether the individual participates in the employer-sponsored plan, and a subsequent clarifying question asks if the individual participates in an employer-sponsored DC plan.
Worker participates in employer sponsored DC plan	A combination of questions. If the respondent replied yes to the question above and the respondent indicates that the type of plan in which he or she participated was a DC plan.

In comparison to other nationally representative surveys, the SIPP had several main advantages. First, the SIPP collects separate information on defined benefit (DB) and defined contribution (DC) plans. Other surveys, such as the Current Population Survey (CPS), do not distinguish between income from and participation in DB and DC plans. Second, the SIPP sample is larger than comparable surveys, such as the Survey of Consumer Finances (SCF). Consequently, it is possible to produce point estimates for demographic subcategories with a higher degree of reliability. Further, in comparison to the SCF, which oversamples wealthy households, the SIPP oversamples lower-income households—arguably an important component of an analysis of income security.

Despite its advantages, the SIPP has two limitations for our analysis. First, as with most survey data, SIPP data are self-reported. This can be problematic for the reporting of data on income sources and pension plan participation. For example, respondents might incorrectly report that they participate in a pension plan when they do not participate in one. Second, despite the fact that SIPP differentiates between participation in a DB or DC plan, it does not contain full information on whether an individual's employer offers a DB plan.

3. Conclusion

A significant social achievement in America during the 20th century was the dramatic reduction in poverty among older Americans. This reduction in poverty was directly due to social insurance programs such as Social Security and Medicare and the expansion of employer-sponsored retirement plans since the 1940's. Because men and women over the age of 65 still derive nearly three-quarters of their income from Social Security and DB pensions, the Great Recession caused no major changes in the poverty rates of older Americans (Jeszeck, 2012). However, the success at reducing poverty for older Americans is not equally shared across the genders. In 2013, the poverty rate for women 65 and older was 80 percent higher than that of men.

Writing at the start of this century about retirement security, Vickie Bajtelsmit and Nancy Jiankoplos considered the gender pension gap and described the time-frame between 1989 and 1998, as a "decade of progress for women's retirement security." They opined that further improvement in closing the gender gap will come only with changes in women's labor force experiences and investment decision-making (Bajtelsmit & Jianakoplos, 2000).

The retirement field Bajtelsmit and Jiankoplos observed in 1998 has changed. First, since 2001, when the first female baby boomers turned age 55, women between ages 55 and 64

have increasingly participated in the labor force as they are working longer than earlier generations. Second, largely because the portion of men with retirement coverage declined, men and women now participate in a retirement plans at the same rate (Jeszeck, 2012). Third, as the bull stock market was still on the rise in 1998, double-digit investment gains in 401(k) accounts masked the risks of the shift from DB to DC plans at a time when larger numbers of workers were participating only in DC retirement plans.

With lower investment returns, greater volatility in financial markets, and longer life expectancies, women need to save more if they hope to maintain current living standards, especially if they only participate in DC retirement plans. Today, financial experts recommend that workers consistently make substantial contributions to their DC retirement accounts from their mid 20's to mid 60's. Deferring contributions to later in their careers, taking time off to care for family members, earning less, and working for an employer that does not offer a retirement plan requires women to save much more than men in their working years. While women's more balanced approach to investment risk helped them weather the sharp declines in stock values over the last 15 years, how will their investment strategies hold up in the future compared to men? Even as actuaries predict longer lifetimes, few women understand the longevity risk they are exposed to now. Retirement security challenges lay ahead for every woman. Women want help from policymakers because they cannot reach a secure retirement alone (Oakley & Kenneally, 2015).

While the increased focus on ways to expand workplace opportunities to build retirement security for both men and women is a hopeful sign, a commitment to resolve the funding deficits of Social Security while maintaining its critical safety net is important to all generations and needs to be addressed.

4. References

- Allegretto, S., & Tojerow, I. (2014, September). *Monthly Labor Review. Teacher Staffing and Pay Differences: Public and Private Schools*. Washington, DC: U.S. Bureau of Labor Statistics.
- Bajtelsmit, V., & Jianakoplos, N. (2000). *EBRI Issue Brief: Vol. 227. Women and Pensions: A Decade of Progress?* Washington, DC: Employee Benefit Research Institute (EBRI).
- Barber, B.M., & Odean, T. (2001, February). Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment. *The Quarterly Journal of Economics*, 116(1), 261 – 292.
- Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust

- Funds, The 2015 Annual Report of the Board of Trustees, Doc. No. 114-51, 1st Sess., at 1 (2015). <https://ssa.gov/oact/TR/2015/tr2015.pdf>.
- Boivie, I. (2011). *Who Killed the Private Sector DB Plan?* Washington, DC: National Institute on Retirement Security.
- Boivie, I. (2014). *Pensionomics 2012: Measuring the Economic Impact of DB Pension Expenditures*. Washington, DC: National Institute on Retirement Security.
- Boushey, H. (2014). A Woman's Place is in the Middle Class. In M. Shriver (Author), *The Shriver Report: A Women's Nation Pushes Back from the Brink* (pp. 44-73). New York, NY: Palgrave Macmillan.
- Bovbjerg, B. (2006, July). *Baby Boom Generation: Retirement of Baby Boomers is Unlikely to Precipitate Dramatic Decline in Market Returns, but Broader Risks Threaten Retirement Security*. Washington, DC: U.S. Government Accountability Office, GAO-06-718.
- Bureau of Labor Statistics. (2015, December). *Monthly Labor Review: Labor force projections to 2024: the labor force is growing, but slowly*. Bureau of Labor Statistics. <http://www.bls.gov/opub/mlr/2015/article/labor-force-projections-to-2024-1.htm>
- Chang, M.L. (2010). *Shortchanged: Why Women Have Less Wealth and What Can Be Done About It*. Oxford, UK: Oxford University Press.
- Commins, J. (2010, August). Hospital Benefit Plans Weigh Retirement Options. *HealthLeaders Media*.
- Congressional Budget Office. (2011, October). *Use of Tax Incentives for Retirement Savings in 2006*. Washington, DC: Congressional Budget Office.
- Copeland, C. (2015). *Employee Tenure Trend, 1983-2014*. Washington, DC: Employee Benefits Research Institute (EBRI).
- deFrehn, R., & Shapiro, J. (2013). *Solutions not Bailouts*. Washington, DC: National Coordinating Committee for Multiemployer Plans.
- Entmacher, J., & Matsui, A. (2013). Addressing the Challenges Women Face in Retirement: Improving Social Security, Pensions, and SSI. *The John Marshall Law Review*, 46(3), 749-793.
- Fidelity Viewpoints. (2014, June 11). Retiree health costs hold steady. http://retirementresource.nationwide.com/sites/default/files/Retiree_health_costs_hold_steady-Fidelity%20_June11_14.pdf
- Fidelity Viewpoints. (2015, September 3). What women investors are doing right. <https://www.fidelity.com/viewpoints/personal-finance/women-doing-right>
- Fronstin, P. (2012, February). *EBRI Notes: Vol. 33(10). Savings Needed for Health Expenses for People Eligible for Medicare: Some Rare Good News*. Washington, DC: Employee Benefits Research Institute.
- Gale, W., Iwry, J.M., Orszag, P. (2005, July). *Tax Policy Issues and Options: Vol. 13*.

- Making the Tax System Work for Low-Income Savers: The Saver's Credit*. Washington, DC: Urban-Brookings Tax Policy Center.
- Gerontology Institute. (2012). *The National Elder Economic Security Standard Index* (Research Report No. 75). Boston, MA: University of Massachusetts Boston. http://scholarworks.umb.edu/gerontologyinstitute_pubs/75.
- Hacker, J.S. (2006). *The Great Risk Shift: The New Economic Insecurity and the Decline of the American Dream*. Oxford, UK: Oxford University Press.
- Harris, B.H., & Johnson, R.M. (2012, February). *Economics Effects of Automatic Enrollment in Individual Retirement Accounts*. Washington, DC: AARP Public Policy Institute.
- Hartmann, H., & English, A. (2009). Older Women's Retirement Security: A Primer. *Journal of Women, Politics & Policy*, 30(2), 109 – 140.
- Hill, C. (2015). *The Simple Truth About the Gender Pay Gap*. Washington, DC: American Association of University Women. *Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974* (Issue Brief No. 2015-29427). (2015, November). Washington DC: Department of Labor Employee Benefits Security Administration. <http://webapps.dol.gov/federalregister/HtmlDisplay.aspx?DocId=28540&AgencyId=8>
- Jeszeck, C. (2012). *Retirement Security: Women Still Face Challenges*. Washington, DC: U.S. Government Accountability Office, GOA-12-699.
- Jeszeck, C. (2013). *Automatic IRA: Lower-earning Households Could Realize Increase in Retirement Income*. Washington, DC: U.S. Government Accountability Office, GOA-13-699.
- Look to the States for Innovation. (n.d.). Retrieved from Georgetown University McCourt School of Public Policy Center for Retirement Initiatives website: <http://cri.georgetown.edu/states/>
- Madrain, J.B., & Shea, D. (2001, November). The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior. *Quarterly Journal of Economics*, 116(4), 1149 – 1187.
- Mitchell, D.S., & Smith, J. (2016, January). *Issue Brief. Recent Department of Labor Rules Open the Door for States to Move Forward with Retirement Initiatives*. Washington, DC: Aspen Institute.
- National Women's Law Center. (2015, September). *The Wage Gap is Stagnant for Nearly a Decade*. Washington, DC: National Women's Law Center. http://nwlc.org/wp-content/uploads/2015/08/wage_gap_is_stagnant_9.23.15.pdf
- NIRS Survey on Views Towards Traditional Pensions*. (2015). Unpublished raw data, National Institute on Retirement Security.
- Oakley, D., & Boivie, I. (2014, December). *Teacher Retirement Plans: Case Studies Indicate Value of*

- Pensions*. Washington, DC: National Institute on Retirement Security.
- Oakley, D., & Kenneally, K. (2015). *Pensions and Retirement Security 2015*. Washington, DC: National Institute on Retirement Security.
http://www.nirsonline.org/storage/nirs/documents/2015%20Opinion%20Research/final_opinion_research_2015.pdf.
- Oakley, D., & Brown, J. E. (2016, January 19). *Re: State Savings Arrangements Safe Harbor*. Employee Benefits Security Administration. Department of Labor, Washington DC.
<https://www.dol.gov/ebsa/pdf/1210-AB71-00049.pdf>
- Porrell, F., & Oakley, D. (2012, July). *The Pension Factor 2012: The Role of DB Pensions in Reducing Elder Economic Hardships*. Washington, DC: National Institute on Retirement Security.
- Poterba, J.M. (2014, February). *NBER Working Paper: Vol. 19930. Retirement Security in an Aging Society*. Cambridge, MA: National Bureau of Economic Research.
- Rhee, N. (2013). *Race and Retirement Insecurity in the United States*. Washington, DC: National Institute on Retirement Security.
- Rhee, N., & Boivie, I. (2015, March). *The Continuing Retirement Savings Crisis*. Washington, DC: National Institute on Retirement Security.
- Savings Arrangements Established by States for Non-Governmental Employees, 80 Fed. Reg. 72006 (Nov. 18, 2015) (to be codified at 29 C.F.R. pt. 2510). <https://federalregister.gov/a/2015-29426>
- Shaw, L., & Hill, C. (2001, May). *#E507: The Gender Gap in Pension Coverage: What Does the Future Hold?* Washington, DC: Institute for Women's Policy Research.
- Social Security Administration. (2014). *Benefits Paid By Type of Beneficiary*. Baltimore, MD: Social Security Administration. <https://www.ssa.gov/OACT/ProgData/icp.html>
- Social Security Administration. (2015, June). *Fact Sheet: Social Security Is Important to Women*. Baltimore, MD: Social Security Administration.
<https://www.ssa.gov/news/press/factsheets/women-alt.pdf>
- The Vanguard Group. (2014). *How America Saves 2014*. The Vanguard Group.
- Women of Working Age [Chart]. (n.d.). http://www.dol.gov/wb/stats/latest_annual_data.htm.
- Women's Institute For A Secure Retirement (WISER). (2014). *2013 Risks and Process of Retirement Survey. Impact of Retirement Risk on Women*. Washington DC: Women's Institute For A Secure Retirement, Society of Actuaries.
<https://www.wiserwomen.org/images/imagefiles/2014-risks-process.pdf>